# A|RWOMAN 



Photo by Parry Studio
In This Issue FLYING PALS
 temptingly gay atmosphere that gives "happy landings" a new significance. Here the furnishings . . the bar . . the decorations . . are all featured in a smartly modern manner for your pleasure. A complete repertoire of exciting refreshments, from which to choose your favorite concoction. All deference is paid "to the ladies"--the allegedly "hardy sex" is allowed only in your company . .

The Gotham offers $\alpha$ welcome haven to the traveler . . with its warm hospitality . . congenial atmosphere and spacious comfort. Set your compass for The Gotham and experience that delightful "homey" feeling. You'll appreciate the alert service . . the sincere concern for the comfort of each guest . . and most of all the surprisingly moderate


FIFTH AVENUE AT 55th STREET NEW YORK CITY
OFFICIAL HEADQUARTERS OF THE 99 CLUB

## CONTENTS

Garden Navigation-li) Mabel Biifron
Just Among Us Girls-By "Mister" Sueanee Tirlor?
Flying Pals
Along Feminine Lines
Come On In
Michigan's F. E. R. A. Ground Schools-By Alice C. Hirschoman.
Aerial Photography
lines in the Sky-By Pat $O^{\prime}$ Malley
Magazines--By Matbel Britton
Air Mass Mcteorology-By Philip Del V'ecchion
The New Perspective-by Frieds $\mathbb{W}^{\prime \prime}$. Pow Emden
Pot and Pan Mechanics
Airwise Alask (continued from last month) - B) If"illiam Larem
Fashions in Flight-By P'uy Gillis
THE 99er
W'. N. A. A. Contact
Bread and Butter and Aviation
Cloud Club-By Betsy Barton
NEXT MONTH'S more "Veterans of the Air" (flying children of flying parcents). Don't fail to send us quickly some of the veterans you know.

AIRW'OMAN, the magazine of sky talk for women who fly and for those who are still earthbound but interested, is the ufficial organ of the 99) Club of women pilots and of the W'omen's National Acronautical Association.

AIRWOMAN is distributed on American Airlines, Boston-Maine and Central Vermont Airways, Central Airlines, Eastern Airlines, Pan American Airways, Pennsylvania Airlines, Transcontinental and Western Airlines and United Airlines.

AIRWOMAN, Volume 2. Number 5. Abril, 193i. Published monthly by Airwoman. Inc.. nt Hotel Cintham, Fifth Avenue Anul 5 sth St., New York City. Fditorial offices, Hotel Gotham. Fifth Ave. and 55th St., New York, N. Y.. U. S. A. Clar'a Studer, Editor ; Fay Gillis, Associate Ealitor ; Retsy Barton. Junior Editor: Margery Brown, Roving Reporter. Subscr:ption $\$ 1.011$ per year, single copies 10 cents. Application for entry us wecond class matter is pending. Conyripht 1935 by Airwoman, lnc., New York City.


# GARDEN NAVIGATION 

By MABEL BRITTON



I am not going to talk about navigation in the terms of sextant observation of the sun and stars, nor the complications of instrument flying, since I know nothing about either, but of the homely, common-garden-variety of navigation which most of us use in getting from here to there. Of this I am better qualified to write than anyone I know, since I possess a record which I am sure has never ben broken.

In Jiinuary, 1931, I flew from Ypsilanti to Grand Rapids, Michigan, to lunch with friends. After a pleasant visit I was ariven to the airport at about 3:30 for the return trip. It was a bright winter day with snow on the ground, the wind blowing rather hard from the northwest. I climbed into my thick suit, settled into the cockpit, the engine roared-and I was off. I had glanced at the wind-sock, in my quick efficient way, noted its direction and judged the velocity to be about $20 \mathrm{~m} . \mathrm{p} . \mathrm{h}$., then mentally calculated the triangle of the three forces (you remember how the books tell us?). I set my course at 105 degrees.

THE air was very smooth, the horizon sharp and clear, the snow-covered ground was dazzling in the sunshine. What a beautiful and comfortable way to travel! I snuggled further down and let the Waco fly herself. Occasionally I glanced at the compass. My thoughts wandered to the gay talk at lunch--two new books mentioned which I must be sure to read and that last play of Katherine Cornell's.

Sometime later I looked at my watch with a start-how fast the journey had seemed-I must be almost home. But the country looked most unfamiliar; though I was there, the lakes around Chelsea and the spires of Ann Arbor were not! For five minutes I continued on the course looking searchingly for some known landmark; there was none. Another three minutes and a small town appeared with, blessed be, a roof marked. Down I flew to read "Swanton;" out came the Michigan map but feverish search showed no such town. Well, a double-track railroad running northeast from Swanton must lead to something I would recognize, so along it I cruised for about ten minutes until, unbelievably,
in the distance, the river, the bay and the smoke of Toledo appeared. I was just 40 miles off my course on a 125 mile journey!

Michigan is a grand state for crosscountry tlying because the lakes on three sides stop you, but you can, that is I can leak over into Ohio on the south. It is a matter of grievance to me when so much alphabetical money is spent on improvement of airports that no one has thought of the usefulness of painting state liries yellow.

ANOTHER little record I hold is of flying directly on my course-but 60 miles beyond my destination. This was in the days when I believed if a Government strip map showed an airport marked, an airport was there. I was flying from El Paso to Tucson with a stop at Lordsburg for lunch and gas. I was following the railroad (a forced landing in that country away from the regular line of travel would be just too bad) and the first good landmark was Deming, on a slight loop of the railroad, with airport marked south of town. I cruised along, passing several tiny settlements, one slightly larger with a highway crossing which might be Deming. There was no airport however. Forty-five minutes later, on a northern loop of the railroad, the town for which I was looking appeared with airport as marked, just south.

Mentally checking "Deming" I flew cheerfully on down a slight incline and up the next long loop which would bring me to at turn around the mountain and to Lordsburg. It seemed to be taking much longer than I had expected; the wind must be stronger, certainly the air was growing rougher every minute and not then having learned to let the ship "ride" I was about exhausted fighting the stick. An hour of this with the desert blazing below, the mountains looming ominously higher, then at last the loop and turn ahead which meant the field at I.ordsburg, and about time too, for the gas was low. I struggled around the pass--but no Lordsburg, nothing but desert, alkali flats, more and wilder mountains.

I was pretty worried now, though there was still the railway and a highway too, and fifteen minutes later, the luck of an emergency field! Thankfully I sat down. As usual twenty people sprang up out of nowhere, to ask foolish questions, but also, kindly, to bring gas from
the little town of Wilcox nearby. I looked for Wilcox on the map without success until a burly young chap said, "1 hat map's New Mexico, you're in Arizona now." Note: I mistook Lordsburg for Deming-second bid for the Dunce's Cap.

OUl' of five years' flitting hither and yon some common-sense habits have developed. One is, to study the course before leaving the ground; draw a line on the map to the destination, notice the character of the country, the elevation, any special landmarks enroute, and memorize the position of the landing fields. Checking some landmark within five or ten minutes of the take-off is very important. Take-offs are often worrying and in the confusion ensuing it is easy to start on the wrong path. A compass reading, check on a landmark and correction for drift every 15 min utes is just good sense. And always be on the look-out for the next landmark ahead! Memorizing the position of landing fields may seem unnecessary but it sometimes saves worry.

Last summer I was flying from Glenn Curtiss Field on Long Island to Montgomery, New York, 60 miles away. A storm up the Hudson had held us on the ground until late-it was a squeak if we could make it before dark, but friends were waiting dinner for us so we took off. Instead of flying a direct line actoss the mist-filled hills, we followed up the river, dark clouds ahead. I had memorized the position of New. burgh, Montgomery and the airport. It was lucky, for by the time we reached Newburgh it was too dark to read a map easily and besides a rocker-box broke with a bang! Limping and clattering in on six cylinders, it was a relief not to have to hunt for the airport.

SECTION maps are now so excellent that following them is a pleasure. I still like the old Rand McNally state maps in flat country, however, as they give every railroad junction and small village accurately. It might be worth while to know that railroad buildings are a different color on the different railway lines; that targets on switch stands are of a different shape and color for the different railroads; that towns which are county seats have a courthouse, usually with cupola, in the middle of a square;
(Continued on Page 6)


## **"Happy Sandings"

(PARACHUTE GIRL) AN ALL METAL 19'
LAMP with 12" Shade ( $8^{\prime \prime}$ at the Base)
$\star \star \star \star$ Finishes
Stippled Gold On Ivory or Pastel Green $\$ 9.85$
Postage Paid
Clip and Mail

To AIRWOMAN,-Hotel Gotham, 5th Ave. at 55th St., New York City. SHIP................LAMPS - (IVORY) - (GREEN)

TO:
STREEI.
CITY AND STATE
PAYMENT ENCLOSED 8

## AgainW Wace urites Air History



This time with a new 4-place Custom Cabin WACO

Here truly is the last word in luxur ious, practical and coconumical air transportation. This new WACO further emphasizes WACO leadership in desimn, construction, performance and outstanding value.
Distinctive new lines permit an appreciable increase in speed using only $80 \%$ of the available horsepower. This means lower gas con-
numption, lower operating cont, and longer engine life.
The Custom Cabin WACO is offer with the following power plants with the following power plants and crusing speeds-Continental 33 milé: Jacobs: 137 miles Wright, 145 miles: all based on 1900 R. P. M. Detailed performance figures will he supplied through any WACO deal'r or sent to you direct upon request.

## The Waco Aircraft Company, Troy, Ohio, U. S. A <br> WACO <br> Ask Any Pilot"

WACO LEADS IN AIRCRAFT REGISTRATION

# Just Among Us Girls By Mister Swanee Taylor 

Ob! givls!!!-We had the gurandest time at the simply heavenly 99'er party and Fashion Show, over on 8th Avenue, at the New Yorker Hotel. It was even well worth braving the mid-March gales to get cross town. The show was what may be called a two gat-I mean Gal show. That is, at least as far as the comteriere phase was concerned. Alice Young and Leonora Ormsby turned loose on the floor nearly half a hundred models between them, some of which reached as low as the lumbar curvature. Were they handsome!

> Of course it was the first time your big Bro. Swanee ever announced one of those frills and flounces dingusses and it called for one or two shopping trips to the soda fountain with Larry Cooper in order to jabber about those janes, as they dead marched doun the carpet, with no more information about their gowns than, say, I have about Dionne Pere.

Well, I'm not going to say anything about the lift-drift ratios, or the gliding angles of the various creations. Style engineering is ably covered in another department of this our modern woman magazine. But I must do a bit of reporting. My journalistic pride demands that I record, and indelibly I hope, an incident that bears a stern moral. You see, there were two semi-professional mannequins who showed innumerable models. They were bouncing in and out of the dressing room like rabbits in a hutch. And due to their numerous changes, I suppose they couldn't very well wear slips. (Not side ones, boys). The effect was, to put it mildly, devastating. One man, a newspaper reporter, fainted dead away and had to be lugged outside into the cool air.

All in all it was a suell party. And I could become very gay if only the editorial policies of this publication were a bit more liberal. I can think of a lot of funny things to say about the various costumes. for example, our oun dear litule bride, Mrs. Fay Gillis Wells, wore a thing called. "Take-off." Which, you must agree, is sort of leading with the chin. However, I can't say a thing because the editorial board is unalterably set on keeping the book clean for the kiddies-and C'y Calducell.
Let me commend to you this plan of raising money, girls. The New York chapter did a wow of a job. I know naught of how they went about it, having resolutely fought shy of getting dragged in. But, speaking of results, they collared enough dough to buy a ship. Which means that members of the local chapter can hop about in the Taylor Cub at very low cost. And I'll wager that before the summer is gone the sweet sisters will have another ship-meaning that the nucleus of the first 99'er squadron will have been formed. Why don't the rest of you babies try something like it?

 Lieutenant Commander Paul E. Gillespie. Director and Chief Instructor.

Start your flight training now for Sport or Professional career at world Renowned Roosevelt Aviation School, backed by eight sonsecutive years and some 30,000 hours' successful instructional operations, under personal direction of Paul E. Gillespie, overseas war pilot, famous instructor for modern U. S. Navy, air mail pilot and instructor of mail pilots in instrument flying. Write for details, Booklet T. State course preference. Visit

RoosEven Avinlon Schiog MINEOLA

NEW YORK

## ROOSEVELT FIELD HOTEL

A. R. C. KURTZ, Prop.

## Offer modern accomodations

 with air minded surroundings including restaurant and "Toast to Progress" Bar
## Sales and Service <br> BENDIX - ECLIPSE - PIONEER - SCINTILLA STROMBERG

> Standard Aircraft Equipment Co.

Hangar "E" - Roosevelt Field Garden City, L. I., N. Y. GArden City 8753

## FAIRCHILD AIRPLANES

Hangar C, Roosevelt Field

Mineola, L. I., N. Y.

Telephone, Garden City 10395

Having had it from a book by C. A. Sims that "women constitute two-thirds of the passengers on the British regular airliners," we wanted to know why. Here are some details regarding the Britons' method of moulding their air transpori systems

## ALONG FEMININE LINES

Back in 1924 British Imperial Airways decided that women were as good prospects for air travel as men.
It was therefore necessary to make all plans for the future with one eye on the tair sex, so the company placed orders for the Argosy type of airplane. These machines were nineteen-seaters-at that time the largest in the world. While they possessed features such as three engines and a bar for men, they also had certain points which appealed to women and which up to then had not been considered. One was height, the cabin or saloon being over six feet high. It was also almost square, which did not improve the outward appearance, but did enable ladies to stand up and walk about with their hats on. It also had a buffet from which a sieward served tea and other light refreshments. The saloon was quite long and the seats were roomy, with plenty of space in between.

A large washroom with hot and cold water was at the back of the saloon, and behind that was the most important innovation - a very large baggage compartment for heavy luggage, for what woman would be going to Paris unless she brought back clothes-large quantities of clothes in big trunks. As soon as it became known that spacious room was supplied for baggage, a large increase was noted in feminine passengers.

As all operators know, airplanes are expensive things. Imperial Airways carried on with the Argosy type for some years until they had more than earned their cost and keep. It was essential that new equipment should be construcied and in 1931 the Handley-Page Hamibal and Heracles type went into service.

These new machines were very much
improved-still with an eye on the ladies. They were 38 seaters, divided into two cabins and built for comfort rather than speed. Between the cabins, which were situated one behind the other, were a kitchen, a large baggage compartment, and two washrooms-one for women, the other for men. The women's was the larger of the two and, of course, much better appointed.
The seats were so arranged that parties of four could sit together at tables and play bridge, or, alternatively, there were little two seat divans for couples. Two stewards served wines, cocktails and liquors and a full course lunch or dinner with hors d'oeuvres, soup, roast, dessert, with "fixings," was supplied at moderate prices. In the front of the ship was a compartment for baggage and in the rear another one for heavy baggage. Provision was made somewhere for carrying pet dogs at freight rates.

As the routes of Imperial Airways spread towards Australia and South Africa, similar aircraft were placed in operation across the Mediterranean and to India and Central Africa. Here again the traffic consisted of whole families going to and fro from England to all parts of the Empire, and in some cases the front cabin was converted into a nursery.
The Vicereine of India has travelled many times to London by air, and the picturesquely garbed Indian Maharanee is a common sight on this route. The Queen of the Belgians has flown to the Congo, the Duchess of Kent from London to Paris. Old Ladies of over eighty years have crossed Africa from Cairo to Cape Town, and tiny girls in arms have been flown from Bagdad across Europe.

## GARDEN NAVIGATION

(Continued from Page 3)
that wherever the Standard Oil Co. has a bulk plant (the tanks and buildings are painted a grey-white), S. O. will be painted on the north side of the roof and the name of the town on the south; Shell Oil buildings are painted yellow, but do not have the name of the town. And in compass calculations, those wavy red lines do really mean something! A correction of 11 degrees in a flight from Detroit to New York is worth noting. And have you ever had to reverse your course exactly, and quickly? What would the compass reading be? If less
than 180 degrees, add 180 ; if more than 180 degrees, substract 180 ; e. g. course, 76 degrees, opposite, 256 ; course 220 degrees, opposite 40. And then there is that ogre of the northerly turning error.

But after all, Spring is here! yes, really, though it's snowing in Michigan. Give us our goggles and a map and let's go some place! Navigation? "Nothing to it"-as my first instructor said when I timidly inquired where I should take a course. "Just point your nose in the right direction and keep the engine going."

## COME ON IN!

"I've been an interested reader of your magazine since April, 1933, when my mother gave we a subscription for a birthday present I wanl to give three cheers for it and say that the only objection I can find is that it doesn't last long enorgh!'" Signed: Agnes English Torrence.

ETTERS like that make us stop and realize that the time has come for all good AIRWOMAN rooters-meaning the 99ers, W.N.A.A. members, Cloud Clubbers and other readers-to sit in with us-the editors-and see how we can make the magazine not only "last longer" by putting in more pages per month, but how we can make it last forever, by building up its circulation and consequently the amount of its advertising space to a point where the cost of editing and publishing is permanently underwritten.

Which brings us to the delectable news that Susanne MacPherson, a 99 member, has sold 51 subscriptions during the last few weeks!

## Contest Announcement

It call be done on a quantity basis, you see. And this fine record has inspired us to make plans for a subscription contest, beginning April 15 (that is, right this minute) and closing July 15.

A parachute lamp will go to the individual who sells the most subscriptions. There will be a second and a third prize also. Every reader, club member or no, is eligible to enter the contest.

Last year on the old 9Yer, Margarct Cooper, national 99 president, donated a trophy for the 99 Club section which sold the most subscriptions. The New YorkNew Jersey section won it. This year Dolly Bernson, governor of the New England section, is donating a cup for the 99 section which sells the most. Perhaps there will be a W.N.A.A. chapter trophy also. This thing got under way before we had a chance to get organized on all the details.

MARK AIL. SUBSCRIPTIONS: Connt on Contest.

## Revenue

A commission of 25 cents is now deductible on each dollar subscription be any member of the three club groups or by an authorized subscription representative. Selling subscriptions-if sold in quantity-is a practical means of raising club treasury revenue, even for buvin! individual flying time or saving up to buy a ship.

MORE especially is this true since we have decided to offer a commission of 50 cents on subscriptions in lots of 25 or more to members of any of the
three organizations or to authorized representatives. In other words on 50 subscriptions the commission deductible will be $\$ 25.00$.

However, each subscription must show the date of sale, and no more than two weeks will be allowed to elapse between the sale of the 1 st and the 25 th subscription in one lot. This is to avoid having subscriptions held up and depriving subscribers of their copies until 25 accumulate.

## MICHIGAN'S F. E. R. A. GROUND SCHOOLS

## By ALICE C. HIRSCHMAN

Col. Floyd E. Evans, Director, Michigan State Board of Aeronautics, has again shown his progressiveness and perspicacity, in establishing a series of Aviation Ground Schools throughout Michigan, with the aid of F. F. R. A. funds for education in Michigan.

At present there are twelve of these schools in operation in the major cities of the state, four of which are in Detroit. It is planned to bring the total number up to about thirty. All work is under the supervision of the Michigan State Board of Aeronautics, and the instructors are all either regular instructors in aeronautics from the schools and colleges, or pilots qualified to teach, who are otherwise unemployed. The average classes have a hundred students, over $20 \%$ of whom are women.

The work covers complete study of aircraft, aviation engines, aerodynamics, and state and federal air traffic rules and regulations. Written examinations are given at regular intervals, and a certificate is to be issued at the completion of the course. Those receiving certificates will be qualified to go on with the courses in meteorology and navigation, which are planned for next year.

These schools are free to the public, the only cost being the text books, which are sold to the students at cost, and this amounts to only $\$ 5.25$ for the complets course.

With the twelve hundred students now enrolled in these fine schools, and those to be cnrolled in the school now in formation, it is felt that a fine nucleus of flyers is being built up in Michigan. It is interesting to note that in one of the schools in Detroit, the instructor explained the large expense involved in flying to the class, and then inquired how many planned definitely to take up flying. Fitty percent of the class stated that they so intended.

# Air Associates, Inc. 

Manufacturers and Disiributors

## Aviation Accessories, Supplies, Equipment

Everything for the Private Flier

GARDEN CITY, N. Y. - CHICAGO, ILL. On Roosevelt Field On Municipal Airport

GLENDALE, CAL.

On Grand Central Airporl


## Safair Flying School

is pleased to announce a reduction of $10 \%$ in fees for all Flying Courses. Approved by U. S. Government for all grades of pilats' licenses-instructors with 14 years exper-ience-Ground School at New York University
Special Courses in Instrument, Radio and Night Flying. details on request
SAFAIR FLYING SCHOOL
Hangar B - Roosevelt Field - Mineola, L. I. Tel. Garden City 960
N. Y. Office- 29 West 57th Street Tel. PLaza 3-4446


International News Photo

- You should have been with us when the secret leaked out that Fay and Lint were married. More fun! More flowers and so on. N. B.-The gorgeous box from Lynn Fontanne and Alfred Lunt.
- We believe you are entitled to a looksee at the bride (Fay Gillis, AIRWOMAN co-pilot) and the groom Linton Wells (well-known writer, who also flys, having soloed in 1915).
- The flying couple-Mr. and Mrs. Wil'iam Beard, who are responsible for the prizewinning house to the right of them.

Wide World Photo

- Not only was this safe home of William and Melba Beard in Altadena, Calif., conceived while flying over buildings wrecked by earthquake and floods, but Melba herself chose a site for it after an extensive aerial survey during which she was both pilot and observer-of markets, schools, and transit lines.
- The earthquake, flood, wind, fire and termite proof home consists of cellular steel sections, sprayed with aluminum. The interior and furniture are alsc of metal, while room-height windows and doors give it an "airy" feeling.
- Richard J. Neutra, the architect, has just advised the Beards that the structure has received the Gold Medal in the Better Homes in America Competition.



# LINES IN THE SKY 

By PAT O'MALLEY

## Second Call

Last month we issued a request for airline passenger mileage statistics. So far Mrs. James R. Leisk of South Africa with her 250,000 miles still stands head and shoulders above anything yet reported. Still Ethel Ely Pattison, of New York, with over 100,000 is coming right along. From another New Yorker, Harriet G. Hobbs, we have:
"As a subscriber to AIRWOMAN I noticed the question, Who's the champion airline passenger?'
"Probably my few miles mean nothing to many air travelers, but anyway I have flown 30,000 miles in the past four years on T.W.A., United and Eastern Airlines."

Several passengers report they have


Mrs. Josephine Roche, Assistant Secretary of the Treasury, and confirmed air traveler, buys a ticket for a Denver to Washington trip via United plane.
done considerable passenger flying but have not kept track of mileages. So we're asking you again to try and figure up, even approximately how much distance you have covered. And if the total comes to less than 10,000 miles, please send it in anyway.

During how many years the flying was done and over what lines, as included by Miss Hobbs, would also be helpful.

Incidentally we understand that close to 40 per cent of Eastern Airlines' passengers on the New York-WashingtonMiami route are women.

Further, passage was booked on Imperial Airways in Cape Town South

Africa, for a baby before it was born. The baby was a girl and she flew to Alexandria in the space, as reserved, when she was two and half months old.

## Juneau to Nome

On April 2nd, Pacific Alaskan Airways a subsidiary of Pan American Airways, crashed America's "last frontier," the Arctic Circle at the top of the world. On that date they instituted a serviceusing Lockheed twin-engined Electraswhich spans Alaska from Juneau to Nome, on the Bering Sea, in seven-hour flying schedules, replacing 34 days of surface travel and providing a four and one-half day service to New York.

OVER the historic dog sled trails, which for generations have represented the only means of reaching interior Alaska, over the heroic path to the Klondike, the Yukon and the Kuskokwim, airliners will accomplish in a single hour's flight what has heretofore required a full week of difficult travel by dog team or slow river boat. Through connecting service arranged with the domestic airlines in the United States and with the Alaska Steamship company, operating from Seattle, the first through plane-steamer-plane service to the far north went into effect on April 2nd, simultaneously with the new Alaskan schedules.

They will reduce the travel time to Fairbanks, the commercial capital, and other important inland cities in Alaska, from weeks to days.

## Quite a Lot of Gas

Committments for the purchase of $4,300,000$ gallons of aviation gasoline, which is the highest grade motor fuel obtainable, have been signed by officials of American Airlines with Shell Petroleum, Standard Oil of Ohio and the Pasotex Petroleum of Texas. Others to be signed will bring the total for the year to approximately $7,000,000$ gillons. This is in addition to 125,000 gallons of aviation lubrication oil.

## Spinsterly Candor

The following was reported as a word-for-word conversation by airline pilot Hy Sheridan with a prim, shy looking woman passenger.
"Do you enjoy air travel?"
"I love it," she answered.
"Is it the speed, the cleanness, the smoothness or what that attracts you?"
"Oh," she said, "I like the friendliness. It's the only place men ever talk to me." ${ }^{\text {n }}$

# MAGAZINES <br> By MABEL bRITTON 

Ladybird by W. B. Courtney, Colliers', March 30, 1935.
This week's Colliers' devotes three pages to a fine story about Helen Richey and her achievements. Straightforward and simple, as she is herself, the story swings along with real dramatic interest. One misses the twinkle in Helen's eye which accompanies her own telling of some of these anecdotes!-but those who know her and those who don't must all admire her and agree with the author, who cites her appointment as co-pilot on Central Airlines as the biggest achievement yet for women in aviation. Bravo Helen, and good luck!
I''ings IV'ithout Halos by Swanee Taylor Saturday Evening Post, March 30, 1935.

This is a fine, common-sense article about the simplicity and delight of flying and of learning to fly. Sound information and interesting examples abound. The novice must find it hard to resist the allure of such a winsomely simple exposition. I hope Mr. Taylor will permit me to quote what was news to me and of great interest, - "There is only one living creature that is a born flier. Everything else - the birds, the bees'n every-thing-must take flight instruction. And the one so richly blessed is the Australian brush turkey, a curious little fellow who pops out of his shell, fully feathered, all set and ready to give her the gun."

Elly Beinhorn's book, Flying Girl,, just out, will be reviewed next month.

## A List of 99 Club Sectional Governors

New' England-Dolly Bernson, 140 Sewell Ave., Brookline, Mass.
Neu' York-New' Iersev-Mariorie Ludwirsen. 4 Irving Place. New York City.
Middle Eastern-Genevieve Savage, Ouarters No. 4, Bolling Field, Washington. D. C.
North Central-Alice Hirschman, 861 Edsemont Park, Grosse Pointe Park. Michigan.
Southuestern-Clema Granger, 1617 WTelleslev Drive, Santa Monica, Calif.

Northuestern-Cora Sterling. 2012 43 rd St., North, Seattle, Washington., acting governor. (Election pending).

Southeastern-Mary Nicholson, c/o Sternberger Children's Hospital, Greenshoro, N. C.
South Central-Dorothy McBirney. 1414 S. Galveston, Tulsa, Okla.

# AIR MASS METEOROLOGY 

By PHILIP DEL VECCHIO



I have often wondered just how much success can be traced to a mouth-filling name such as Air Mass Analysis when it is applied to a new and pioneering subject. Make no mistake however. Air Mass Analysis is here to stay-high sounding name or no. As Amelia Eathart said, it is already proving its worth by increasing the accuracy of both short
ther science of the past century, there are still many bugs and kinks which will have to be taken out before our meteorologists can mark their forecasts $100 \%$ day in and day out. It is not a magician's wand by which all the weather map's bugaboos are frightened away. It is something which, if handled with care and patience, will some day bring meteorology within range of the mathematical exactitude of science such as astronomy and chemistry.


Boeing Transport, 1933-An etching by John S. Hammond, former aviation editor of the Detroit Times, now a free lance writer on the West Coast.
and long range forecasts. But then let me tell you a story of what happened to me when I was a little boy.

I had seen an advertisement of a remarkable telegraph set which could be heard for hundreds of yards, the mag. azine said; and which sold for the ridiculous price of ten cents. Truly, this was a bargain. So I saved the necessary pennies and one day the postman brought me a tiny box. I opened it feverishlybut lo! and behold! instead of the complicated contraption I had hoped to find out came a piece of spring steel stuck into a sliver of wood. When you pushed the steel down it went, "Click" and when you let it up it went, "Clack." I am still wary of too much enthusiasm.

So, then, I will let you girls in on a little secret. Although air mass meteorology is the greatest advance of wea-

BU'I let us proceed. We must know something of this new phase of weather forecasting if we are to be able to keep the respect of our airport meteorologists. It has not always been known as air mass analysis. The Bjerknes family in Norway made the first practical advances along these lines and it was called, for some time, Polar Front Forecasting. In our United States the most rapid advances have been made at the Massachusetts Institute of Technology under the direction of Dr. C. G. Rossby and that wizard of analysis, Dr. H. C. Willett. Both these men received the newly created Reed Award for new developments in aeronautics not so long ago. The California Institute of Technology has also been prominent, especially in West Coast weather forecasting. Our own Army and Navy have been working on the problems concerned with
this type of forecasting and since early 1934 the Weather Bureau has been developing it for their own work. Three major airlines are using it continuously in their daily short and long range forecasts.

Let us begin very simply, for there is a great deal to air mass meteorology and we must take a little chunk at a time. The old system was to note the areas of low and high barometric pressure on the current map, compare their positions with that of the previous day and estimate the probable movement for the following twenty-four hours. These high and low pressure areas were supposed to bring with them the areas of foul and fair weather. Many a meteorologist has banged his head on the map table when the sequence of weather events did not transpire as he had forecast, and no wonder. It will eventually sink into the addled pates of the remaining old school weathermen that lows and high are ef-fects-not causes.

An air mass is usually defined as a considerable portion of the atmosphere "homogeneous in horizontal extent." Bctween you and me this means that a great gob of air has stagnated over one portion of the earth's surface so long that it has acquired the characteristics of that region. For instance, one air mass, which is the principal weather-breeder of the United States, is called Polar Continental -very aptly. This type of air mass forms by lying over the cold wastes of the Arctic, Alaska and Canada. Its unvarying characteristics are extremely low surface temperatures and extreme dryness.

T
HE next in importance is Tropical Gulf, and is formed by passing over the heated waters of the Gulf of Mexico. Its features are high surface temperatures and great humidity.

The cold polar masses usually move south and southeastward-the warm tropical air north and northeastward. Should these two meet several things happen. For one thing, the meeting line of the two dissimilar masses is called a "Front." If the cold air is advancing, driving the warm air in front of it, the front is a Polar Front-if the warm air advances, it is a Warm or Equatorial Front. What happens at these fronts is of supreme importantce in forecasting the weather. We shall take it up in later articles.


Photos, Courtesy of McLaughlin Aerial Surveys

B
N y
$\stackrel{E}{W}$

Contact . . . Contact . . . !
A whir of motors . . . and off we are!
Skimming the sod; we cannot tell
Just when we left the earth
and when we start flying.
We're off for the ceiling over our head.
The town is below us,
y the houses, the parks and the steeples.
At once we know how towns are built
and streets laid out!
We'd never SEEN it before!
We're over the countrvside, the woods and the hills, roads, rivers, lakes and farms! Tilled soil, like a huge checkerboard in solid squares, quite neat of various shades of green. And also squares of brown of freshly turned-up soil.
W'e grasp the meaning now of forty. . eighty acres
Of farms . . . of ranches
We trace out railroads, highways,
irrigation systems.
Motor vehicles we see at first,
they look on roads
like bugs on ribbons!
We don't see people after we've gone up,
for people are too small and insignificant.
But from the air we understand
their works and labors.
A new respect is born in us,
A pride in what the human race made of the surface of their earth!


## AIR WISE ALASKA

 By WILLIAM LAVERY (Consinued from last month)Aviation began to look good to a number of the local business men, among them my Father, so you can see I inherited my love of aviation honestly. They organized the Fairbanks Aeroplane Corporation, and Jimmy Rodebaugh went in with them. After a short time they decided they needed bigger and better planes so they sent Noel to New York, where he purchased a Fokker. This plane is well worth describing, as it was one of, if not the first cabin plane in the States. It was a high-wing monoplane, the wing being full cantilever and of plywood construction.

The fares they charged at this time are well worth mentioning. From Fairbanks to Nome, a distance of 500 miles, one passenger had to shell out $\$ 1,000$, two went for the trifling sum of $\$ 750$ each. To the rest of the nearby communities it was only $\$ 1.00$ a mile.

The company hired A. A. Bennett as pilot and then, a little later, Joe Crosson. During the winter A. A. and Joe built over an old Standard. They enlarged the front cockpit so it would hold four passengers and made a cabin over it. This was a bit unhandy for the passengers, because they had to wait until the pilot unlocked the door before they could get out. It wasn't long before the directors had a Swallow with a Hisso added to their fleet. Then came old Man Trouble. They lost the Standard and the Swallow. However, they weren't discouraged, for they purchased another Swallow, which was the first ship to make a commercial flight to Point Bar-row-quite a feat for a water-cooled job in the middle of an Arctic winter.

About this time Bennett and Rodebaugh went in for themselves and brought in three O.X. Wacos and, up until the time that Alaskan Airways, a subsidiary of American Airways, bought them out. they did very well, adding another Swallow and a Zenith to their outfit.

In the meantime, Noel Wien had been to the States, and returned with a Hamilton and organized Wien Airways of Alaska. He also had a Stinson Detroiter that he purchased from Sir Hubert Wilkins, who had left it here after his second North Pole hop. The Alaskan Airwavs bought out Wien also and converted his hangar into their main shop.

At this time Colonel Ben Eilson was representing Alaskan Airways and, until he and his mechanic, Earl Borland, crashed in the Hamilton, continued in the position of chief pilot and manager.

A year or so later, in 1930. Joe Barrows came up here and started the Pacific Alaska Airways. His outfit shipped in

## POT AND PAN MECHANICS

Returning the speculative stare of a menu card . . Spanish Omelet? No . Crepes Suzette? No, not today . . . W'elsh Rarehit. Well, perhaps . . . we're interested, but skeptical.

So would you be if you had been disil-

And in the event you had thought of beer only as a beverage, not as a cooking staple, here are a couple of other recipes in which beer is a major ingredient. Beer Soup a la Creme is recommended as a tonic , and the sausage idea is grand for midnight or Sunday night suppers.


The stage is all set fer the curtain to go up on a performanse of Welsh Rarebit at its best.

Courtesy. Schaefor Brewing Company.

Lusioned on tearoomy Welsh Rarebits, time and again, been told there were really made with beer and recognized from the first whiff that flour and milk were omnipresent therein.

It is the same iniquitous idea as clam chowder in which you can't detect even so much as the monogram of the clam family, or ice cream which has the consistency of warm stew.
For it almost follows as the night the day that if it's made with beer--fullflavored, fresh beer, then it's good Welsh Rarcbit. But not always. Proportions and method, also count.

Meantime, across the table from mein my whether-to-order-or-not-to-orderrarebit quandary-sits Annette Gipson, pilot and sponsor of an annual all woman's air race.

Would you like a good receipe for Welsh Rarebit?" says she. We would, and having found it most excellent are passing it along.

Old-fashioned Rarebit
1 pound American cheese
1 tablespoon butter
2 teaspoons salt
2 teaspoons dry mustard
1 teaspoon paprika
$1 / 2$ bottle beer
Flake cheese. Melt butter, stir in seasoning, add cheese and cook over a low fire until melted. Stir in the beer gradually and conk until mixture is smooth. Pour at once over hot toast or crackers and serve immediately, bubbling hot.

> Beer Soup a la Creme

1 quart beer
1 quart water
1 thsp. flour or cornstarch
Sugar to taste
1 lemon peel
1 stick cinnamon
4 eggs
Mix and place in a saucepan over the fire, beating constantly with egg beater until it comes to a boil. Remove from fire and pour into tureen, lined with toast squares.

## Frying Sausage Boiled in Beer

Pour white or brown beer (not bitter beer) into a sauce pan, add onions, whole spices, bay leaves, 1 or 2 carrots and hoil until carrots are soft. Melt lump of butter in a frying pan, dust sausage with flour and fry to a nice golden brown. Strain liquid, and pour slowly over sausage. Add a few drops of beef extract to taste.
a number of Fairchilds and did a lot of flying, packing the mail. In 1932, Pan American Airways took over Alaskan Airways and Pacific Alaska Airways and merged them under the name of Pacific Alaska Airways.
There are six independent companies doing business here, all of which have at least two planes. The majority
of the ships are Stinsons and Bellanca's. There are also three privately owned planes.

All of which makes our batting average pretty fair, seeing as how there are only between twenty and twenty-five hundred people, dogs and horses included in this-the "Golden Heart of Alaska."

# FASHIONS IN FLIGHT 

By FAY GILLIS

Thirty-five pounds of luggage per passenger is the rule on airlines.

That may not sound like much to the traveller who tours only in terms of trunks, but it means actually fen complete instrmes by Sally Milgrim, not to mention such frivolous accessories as an ermine jacket, a complete beauty kiteven the bag to carry them in is included.

The problem of limited luggage on the airlines has been one of the major flying drawbacks to the well-dressed women who feel that the mere sound of 35 pounds cramps their ability to be soigne on all occasions. However, Sally Milgrim, dictator of fashion, and a flying enthusiast herself, has solved the problems of the smart flying fraternity.

> Sally Milgrim, our flying des gner, wearing one of her creations which can be either very casual, or without the jacket, very formal.
> Photo by Ray Lee Jackson NBC Studio


You people out in the hinterland are probably sniffing skeptically at this point, so I had better show you, because otherwise you won't believe it and all this will have been in vain-which is what none of us want our work to be.

Let's consider a four-day flying trip to Florida. Miss Milgrim suggests a fourpiece ensemble to be worn on the airliner. The suit has a straight, navy wool skirt. The long-sleeved, navy silk blous? is closed at the neck with an ascot tie, monogramed in red which matches the red chenille stitching on the jacket. It is topped by a pert, blue-wool mandarine toque, trimmed with the red chenille stitching. An unlined, novelty crepe, swagger coat of navy blue, which may be worn with separate dresses completes the ensemble. Accessories suggested are navy blue gloves, quilted kid bag and a two-eyelet tie of navy kid. This outfit is not included in the 35 -pound rule, because you are wearing it, which may give some of you who specialize in breaking regulations an idea.
Suppose you leave New York on the night plane scheduled to arrive in Miami in the morning. Ergo! You can dash right down to the beach or to the yacht -and in what a costume!
Slacks of a durable blue silk material, similar to poplin, with a very trim mess jacket boasting two jaunty pockets are in order. Worn with a halter of vermillon silk jersey, and white beach shoes, the costume weights 24 ounces and the shoes 16. The halter can be interchanged with a one-piece, 12 -ounce white, halter-neck bathing suit of ribbed material.

However, if you are among strangers and don't feel so informal to begin with, wear the two-piece nautical outfit in periwinkle blue and white. The shortsleeved dress is made of white Juno crepe, with the squared effect on the shoulders outlined in blue, which matches the blue buckle on the belt. The double-breasted, blue jacket is fastened with white buttons. This ensemble weighs 12 ounces and is worn with a 2 -ounce blue felt hat, 16 . ounce white kid shoes, 1 pound white kid bag, and white kid gloves that tip the scales at 4 ounces. So far this seems to be an argument in favor of matricula:ing in mathematics!

Costume No. 4 is a dress suit of mallarsè crepe. The simple, princess dress has shoulder sleeves and a star-sapphire clasp at the V-shaped neck. The elbowlength sleeves of the jacket, which ties in front, are banded with summer fox, dyed to match the suit. Simple but is it
smart! And it weighs just a pound. With it is worn a large black, 10 -ounce paper panama straw hat, a 12 -ounce black crepe bag, 16 -ounce sandals, and 3-ounce black mesh gloves-all of which may serve as the accessories for another short-slecved afternoon frock-a small flower-print of deep, dusty pink and charlreuse against a hlack background. A large charlrense velvet bow at the neckline is the only trimming, and the dress weighs just 8 ounces.

For cocktalls and dancing, what could be smarter than the costume worn by Sally Milgrim in the illustration? It has a long black crepe skirt topped by a heavy white ribbed silk halter, over which is worn a very tailored mess jacket with jet cuff-links. It weighs a pound and a half and with it is carried either the black crepe bag mentioned above or a white brocaded evening bag with a seed pearl clasp weighing exactly 12 ounces. The necessary white gloves weigh a mere 5 ounces The black crepe slippers worn with the print dress can do double duty and add pediatric attraction to this outfit.
If you are inclined to be sophisticated, wear the svelte white floral doucel print with clusters of violets scattered here and there. A bunch of violets just must nestle in the V-shaped neck. With a long white slip it weighs 28 ounces. A one-pound pair of navy blue sandals and the white brocaded evening bag with long white gloves complete the ensemble.
However, if you feel demure, and between us girls, just a bit devilish, the gown to wear is a navy blue cire lace affair worn over a navy satin slip. The cobweb lace jabot at the neck is held by a red and rhinestone clip which matches the two clips on the belt. The dress is fitted to the knees and then flares out in a double flounce to the instep. Twelve ounces of feminine adornment, and too, too de-vine! That's the phrase of the moment, isn't it? The blue taffeta evening bag tips the scales at 8 ounces, the blue taffeta gloves with the lastex palms are 5 ounces, and the blue satin sandals have already been on the scales.
If there is a breeze blowing you can slip into an ermine evening jacket which weighs a mere 19 ounces.

For night time-a three-piece, vermillon, pebble crepe ensemble. The top of the pajamas has a Peter Pan collar with
(Turn to Page 16)

## New England

Susanne MacPherson, of Newton, Mass., recently sold 51 subscriptions to AIRWOMAN, which is a record to date for one individual. Susanne came in last December as a Junior member, but recently got her pilot's license and became a full-fledged 99. Daisy Kirkpatrick, of Swampscott, Mass., has sold the 6 subscriptions pre-requisite to Junior membership in the New England section.

Evidently the other 7 sections will have to look for some sturdy Down-East competition on the cup which Dolly Bernson of Brookline, Mass., is donating to the 99 section which sells the most subscriptions between April 15 and July 15. Individual prizes are also being offered. Details of the AIRWOMAN subscription contest appear on another page of this issue.

## Middle Eastern

On March 9 the Washington Air Derby Association held its annual award banquet at the Congressional Country Club. Each year the Association selects the one person in the District or within thirty miles of the District of Columbia who has done the most to advance, promote or further interest in aviation for the District and adjoining area during the past.

The recipient of the award for 1934 is Genevieve Savage, who will hold the silver and marble trophy for one year. Harrison Somerville, president of the Washington Air Derby Association, and Mr. C. H. Warrington, previous holder of the
award, made the presentation to Mrs. Savage, who is governor of the 9Yers for the Middle Eastern Section.

## North Central

Ohio Chapter: The Ohio Chapter met Saturday afternoon, March 27, at the Statler Hotel in Cleveland, to discuss plans for future meetings. Mary Winstanley, Abbic Dill; Leora Stroup, Ann Barille, Alma Arlene Davis, and Clara McCormick were there, and Alice Hirsch. man came over from Detroit for the meeting.

Michigan Chapter: The Michigan Chapter met for luncheon at Helen L.ehtio's on Saturday, March 9. The Chapter was glad to welcome back into its fold Laura May Brunton, who has just returned from a winter in Montana. She regaled us with tales of the peculiarities of flying in the hills of her home state, as well as with the adventures she and her husband had on their trip out in their Waco A, and their hop back to Ann Arbor in their new Lambert Monocoupe which they picked up in St. Louis. Leah Zeigler, a former gyer from the Southeastern Section, who has temporarily given up active flying to study Acronautical Engineering at the University of Michigan in Ann Arbor, was a guest at the luncheon. She gave an interesting account of her studies at the university, and the activities of the 99s in the Carolinas.

On Wednesday, March 13, the Michigan Chapter entertained yソer Helen


Copyright by H. A. Schoonhals

The New York-New Jersey section turns out to pose for the cameras with a Taylor Cub in the lobby of the Hotel New Yorker.

Kichey informally at lunchcon in the Pine Room at Hudson's.

## New York-New Jersey

We all heaved a sigh of relief on the fifteenth of March when the money was counted and we found we had earned enough to buy an airplane-which has been our dream for years. The winner of our "Benefit Selling" was none other that Captain Edwin C. Musick, chief pilot of Pan American Airlines, who flies great big airplanes all day long, so he wasn't interested in our small edition and took the money instead. Jimmy Durante officiated at the drawing, which was preceded by a fashion show-ably described by our Mister Swance Taylor in his column. We have the money for the Taylor Cub, but alack and alas there is more to flying than just an airplane-insurance, maintenance, gas, oil-to mention a few of the responsibilities - so now we are dashing around looking for inspirations to raise some more moncy.


Photo, courtesy Washington Star
"Chet" Warrington, (left) 1933 recipient, awards D. C. trophy to Genevieve Savage as Harrison Somerville, president of the Washington Air Derby Association looks on.

We think we have been inspired but we won't disslose the secret until next month when we hope we can announce the fact that our ship is "on the line."

## National Officers

Margaret Cooper, president, Box 441 , Syosset, L. I., N. Y.
Gladys O'IDonnell, vice president, 3723 California Avenue, Long Beach, Calif.

Mabel Britton, secretary, 408 loorest Avenue, Ypsilanti, Mich.

Marjorie Ludwigsen, treasurcr, 4 Irving Place, New York City.
(The list of 99 Sectional Governors is on page 12.)


Mrs. Franklin Nelson, director of the Salt Lake City Unit, holding one of the posters used by that unit in their 1933 air mail week cam. paign.

NO National Air Mail Campaign is in the wind this year due to the lack of a sufficient number of Units of fering to participate. Those Units who wrote to Headquarters signifying their intention to take part, were encouraged to do so as a local project. Next year it is hoped that National Air Mail Week may mean a sweeping and enthusiastic campaign of cooperation by the W.N.A.A. Units. To the Units who wrote in asking for suggestions as to campaign ways and means, an outline was forwarded. The majority of these your Secretary declares without blushes were plagiarized from the Denver and Salt Lake City Units' splendid campaign reports for 1933, for which they recerved the W.N.A.A. Air Mail I'rophies.

## Annual Meeting

Please remember the Annual Meeting, May 17-18, and send representatives to Dayton from each Unit. And as many as can, come yourselves. Many important organization policies are to be discussed and new officers to be elected and installed. There will be entertainment provided and in Dayton there are intercsting things to see. Not the least of these is the home of the great inventor of the airplane, Orville Wright, and Wright [ield, the Government's huge aeronautical experimental station and flying field. Remember the dates May 17 th and 18 th. Arrange for sending representatives at your next meeting.

## Featuring the Denver Unit

The Denver Unit has always been a highly active group of aviation enthosiasts, winning a great deal of publicity
and praise from groups of local organiza tions, newspapers, and civic institutions. The regular monthly meetings are held each fourth Wednesday at Lowry Field, the Government flying field, occupied $b_{j}$ the 120th Observation Squadron of Colorado. Lowry lield was named after a young officer, Prancis Lowry, the first flyer from the Colorado Unit to lose his life during the war. His Mother is one of our oldest and most honored members. In commemoration of his bravery, a statue was cast of broorze, an almost lifesize replica, and placed in a niche just above the fireplace in the spacious club rooms of the field.

The meetings are presided over by our President, Mrs. Carlos I.. Reavis, to whom we owe much of our success as an organization.

One of the cleverest stunts used by the group was the introducing of a new song written by a Denver girl and dedicated to the Women's Aeronautical Association of Denver called "Flying High." The manager of our large Orpheum theater saw the possibilities and arranged a suitable program and stage show whereby this song could be used. So each da; for a week, playing three shows a day and four on Saturday and Sunday, our members garbed in flying attire sang the new song.

The Denver Unit has adopted a dress uniform for use at official occasions. The color is deep blue. It is a two-piece suit, with double-breasted coat, buttoned wilh red buttons. A blue overseas cap, white shirt and red tie complete the ensemble.

Mrs. Larry Neff
Publicity Chairmom, Denner Unil.

THE DENVER UNIT OF THE WOMEN'S NATIONAL AERONAUTICAL ASSOCIATION IN UNIFORM



## OUR

## TURFING

 EXPERTMrs. Ethel Ely Pattison

Gather round girls, 1 have some interesting facts to tell you about two favorite flying fields-Roosevelt-and New York's flying claim to fame-Floyd Bennett They were both turfed by a woman.

Our grass expert is none other than Mrs. Ethel Ely Pattison, president of the International Seed Service, Inc., 11 Park Place, who are specialists in turfing airports. Just ask her-she knows the difference between blue and green grassand it isn't all color. If you want to see a beautiful airport, fly over Mitchell Field, the Army's eastern headquarters, or circle the Pratt and Whitney port at East Hartford-both of which were grassed according to Mrs. Pattison's instructions.

But she doesn't spend all her time on the ground growing grass. Mrs. Pattison has over 100,000 passenger miles in the air and she says she hopes to live and work long enough to run it up to a million. That's something to look forward to.

She first began flying in ...... but let her tell the story.
"I began flying in the early twenties (the nineteen hundred twenties, not my own). As I look back, it must have been for curiosity's sake flavored with a generous dash of dare-deviling, for surely nothing could tempt me to even sit in such crafts now. The big Boeings Douglases and Junkers, which have carried me so many miles in recent years
have rocked me into a sense of security from which nothing could lure me."

Her most interesting aerial jaunt was on this side of the Big Pond.
"I left New York on Firiday morning, managed to have conferences en, route at airports with several of my clients, arrived in California Friday night. With the assistance of Mr. Douglas I got an airplane, did my California stint, left there Saturday night and arrived in New York Sunday night in time for a late supper. B. A.--before aviation-the trip would have taken three weeks and cost at least twice as much-and besides, would have been dirty and generally disagreeable."

## FASHIONS IN FLIGHT (Continued from Page 13)

a pert bow and closes down the front with round glass buttons. The pajamas fit snuggly at the waist line with a trick fastening of glass buttons. The belted robe is also fastened with a single row of the buttons. This ensemble weighs 32 ounces and is the heaviest outfit in the wardrobe. Some of you might choose something lighter and add another dress. With it is worn 8 ounce silver slippers.

Other minor but important details include six pairs of suntan stockings weighing 6 ounces, two slips, 4 ounces apiece, and 4 pair of intimates which total 8 ounces.

Add to this 28 ounces of Helena Rubinstein's attractive and compact Beautility Kit, and put it all into a Wheary Wardrolette guaranteed to hold a minimum of eight dresses and five pair of shoes and only weighs 11 and a quart er pounds.

If two and two make four and there are sixteen ounces in a pound-the answer should be 35 pounds and 4 ounces

You can check off the extra four ounces with a great big smile at the baggage man.

And so my dear readers, let's have no more disdainful remarks about the lug. gage problems on an airliner. Sally Milgrim has completely dispelled the theory that travelling "light" means an extra pair of stockings and your toothbrush.

## Get Organized to Win the Big Contest

Every W.N.A.A. chapter or 99) section is urged to appoint a subscription chairman instantly and draw up plans for a campaign -... naming teams, planning tours, drives and what not. Write and tell us how you are progressing so we can report on your drive in the May issue. Supplies of subscription blanks will be sent on request--although, the name, the address and the dollar are all that's absolutely essential. Let us hear from you before April 30.

## Airwoman Incorporates

Airwoman Associates, a co-partnership composed of Clara Studer and Fay Gillis, publishers and co-editors of this magazine, has been sold to a corporation known as Airwoman, Inc., under laws of the State of New York.

The board of directors of the new corporation is: Amelia Earhart, Margaret Cooper president y9) Club of women pilots; Marguerite Jacobs Heron, secretary, Women's National Aeronautical Association; Clara Studer and Fay Gillis, co-editors.

# CLOUD CLUB 

By BETSY BARTON



We are privileged this month to have our first foreign member sign up. She is blonde, blue-eyed Hildegarde Cordes of Hanover, Germany.

Hilda says she has always been an athlete from the time she was nine years old. She is especially fond of swimming. Her parents approved of this so when Hilda pleaded for gliding permission, they said: "Sure, go ahead, it's just another sport." Hilda then set off for the nearest gliding camp which was at Trebbin. Evidently good fellowship counted just as much as ability to fly for Hilda says she was allowed to remain only because she was comradely.

There are both boys and girls at these camps. They are situated in or near towns with good air currents and beaches, etc., for landing fields. Flying and fellowship, those are the chief points in the life of the girls and boys who go in for gliding. Together the pilot is started off, together the glider is dragged back up the hill. Together they eat and work in the shop. Always: one is with one's fellow students--cut off from the rest of the world. No one may leave the camp for every new wind must be explored to the utmost.

Hilda passed her A test at Trebbin. This consists of a curve up over a hill. When she landed she was greeted and congratulated by the instructor as Germany's youngest gliderette-aged 16. Hilda then went to Leba in Pommerania and there completed the course by passing off tests $B$ and $C$.

Hilda's only grief is that she must wait until she is 18 before she will be allowed to fly heavier-than-air craft. Her
secret passion is to build planes, working in a construction plant, but this is impossible until she is older.

Our real admiration goes to Mr. and Mrs. Cordes for having such a daughter as Hilda and for giving her gliding permission in what must seem to American mothers and fathers an appallingly laconic manner.

## Flying Holiday

Two weeks ago an unusual conversation running somewhat like this took place in the Schoolfield home in Washington, D. C.

Mrs. Schoolfield to daughter Frankie: How many girls are you having visit you, dear?"

Frankie: "Five."
Mrs. Schoolfield: "How are you all going to get down to Miami?"

Frankie: "Drive, I guess."
Mrs. Schoolfield: "Drive? Frankie, I won't allow it. You know how dangerous I think it is, and with 6 girls in one car-why anything might hap pen."

I'rankie: "But mother, then how-"
Mr. Schoolfield (heretofore silent but always definitely master of his home): "Why not fly?"

Thus it was settled and Frankie, forsaking school books temporarily, flew with her friends to Florida. They left our nation's Capital at 11:15 and landed in Miami at 6:30. The airline was Eastern. The plane was a Douglas. The time uas seven hours. (See picture on Aerial Photography page.)

We can only here offer up a small prayer for more father Schoolfields.


## Scripps-Howard Juniors

During the last two months the Scripps-Howard newspapers have been been running a weekly page called the Junior Aviator-similar to the Junior Birdmen of Hearst papers.

The first four weeks were spent in constructing the baby glider. The sth week, assuming that the fundamentals had been mastered, our junior aviator went on to bigger things-namely the Endurance R. O. G.

## Model Derby

In the 7th week, a transcontinental air derby was started. The two best planes (they must be the stick or commercial fuselage model, rubber-powered, of course) from each town are to be selected. The planes chosen are flown three times weekly in their hometowns. The record is then wired to the editor in Cleveland, who has already decided how many miles each second in the air is to represent, and, he in turn, announces the record for each week.

In Toledo the first female flight squadron has been formed. It is commanded by Betty Jean Shaw, is composed of 12 girls and has been dubbed the Amelia Earhart.

We hope you will span the continent at a future date in your home town with the Scripps-Howards, and we imagine ground-struck parents cannot but approve of a forced landing on grandpa's slippers or mother's newly polished table.

## Club of Sixty

From Framingham, Mass., comes news of a very large and very prosperous club. The enrollment now exceeds sixty and the members, my friends, are all female. Anne McNally is president and their competent secretary bears the name of Marjorie Plenshaw. The club was born in October, 1934, and since then each meeting-or almost each-has been graced with the presence of one or another of our more prominent women flyers-for instance, Barbara Southgate, Tommy Atkins, Dolly Bernson, Margaret Kimball. Amelia Earhart spoke nearby in Bpookline. The members are anxious to start their ground courses this summer but are at present modeling and grounded -even as you and I.

than ever with their new, tasteful furnishings, the loungy chairs and spacious conveniences. The delightful combination of its traditional elegance as expressed in the Renaissance Room, plus the modern smartness of the Alpine Grill and the Ladies' Cocktail Bar, will be pleasant memories of your visit.

The Gotham is located in the heart of the fashionable shopping district . . convenient to all the smart shops . . the theatres . . and easily accessible to every part of the city. Just say "The Gotham" and the car from the airport will drop you at our door. Room rates start at $\$ 4.00$

$\therefore$ fifth avenue AT 55th STREET NEW YORK CITX


Loose boits, nuts, or screws are dangerous! Parts with the

DARDELET SELF-LOCKING THREAD
always stay tight... Insist on their being used in your plane!

DARDELET THREADLOCK CORPORATION 120 Broadway

New York City


me can tell it's...<br>\title{ BEER AT ITS BEST" }

## THE THIRD PILOT



The pilot and co-pilot need no longer be helmsmen. The SPERRY GYROPILOT flys the plane safely and with precision while the pilot ană co-pilot attend to their varied duties as captain, navigator and radio operator.


SPERRY GYROSCOPE CO.,Inc. BROOKLYN - NEW YORK

